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Honorable Lionel H. Olmer
Undersecretary For International Trade
U.S. Department Of Commerce
Washington, D.C. 20230

Dear Mr. Olmer:

I read with interest the draft of "An Assessment Of U.S. Competitiveness In High-Technology Industries" as prepared by your working group for the Cabinet Council On Commerce and Trade. I find it an outstanding piece of work. It is at the same time an articulate and understandable description of the "Hi Tech" trade problem. The working group's decision to avoid technical jargon was a good one. My advice is that you consider the expository aspect of your undertaking complete and well-done.

Now, to your all important question "What do we do next?" Your report avoids the words, but implicitly cries out the answer. We must forge a national strategy for high technology industry and trade.

As a practitioner of high technology industry (and unencumbered by the mantle of public office), let me offer certain observations that suggest an outline for such a strategy. Formerly, I would have to cite these observations simply as emanating from personal experience, leaving the reader the option to discount

Not referred to DOC. Waiver applies.

the impact of these observations on the grounds that they are self-serving, and of questionable relevance to the general issues at hand. Now, I think they deserve additional weight since each observation is substantiated in the study commissioned by the Cabinet Council On Commerce and Trade, a highly ranked and respected body of public officials. Here are the comments.

1. The present high cost of capital is smothering investment in U.S. high technology industry.

   a. These industries need external sources of cash. (They are young and growing.)

   b. Managers do make investment decisions based upon the cost of capital and present value concepts.

   c. As interest rates have risen, decisions have become shorter and shorter term (and less daring).

   d. Thus, growth has slowed.

   e. And, the United States has lost relative position, since its foreign competitors have available cheaper and more stable sources of capital.

2. Investment in basic technology is very risky from a business point of view.

   a. It is very expensive.

b. Resources, i.e. skilled scientists, are scarce.

c. Much of it fails to bring any commercial result.

d. When it does, it takes a long time.

e. Present value at 20% per annum will kill any project.

f. As government funding has declined, so has basic research activity.

3. Every other industrial nation has a "High Technology For Export" strategy.

a. The U.S. has been the high technology leader.

b. The U.S. has the largest home market.

c. Where does that lead us?

d. Do we need a defense as well as an offense?

4. Some of our international competitors trade two ways, others do not.

a. Europe does (in general).

b. Japan does not.

c. The Third World is becoming a "free for all."

5. We cannot win the technology game if our children don't study science and engineering.

a. Secondary school standards are too low in math and science.

b. We have had a cyclical pattern of high unemployment among scientists and engineers, e.g. 1968-1971, 1974-1976.

c. a. and b. have scared off one-half a generation of potential engineers and scientists.

Using these observations as benchmarks, let me outline a strategic hypothesis for your working group to consider.

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THE UNITED STATES GOVERNMENT SHOULD PURSUE A POLICY OF ENLIGHTENED NATIONAL INTEREST WITH REGARD TO HIGH TECHNOLOGY INDUSTRY AND TRADE. IT SHOULD ADOPT A POSTURE THAT IS COOPERATIVE WITH AND SUPPORTIVE OF ITS HIGH TECHNOLOGY INDUSTRIES, AND THE SCIENTIFIC AND ACADEMIC COMMUNITIES WITH WHOM THESE INDUSTRIES INTERACT. THE POLICY SHOULD INCLUDE THE FOLLOWING ELEMENTS.

I Low Cost Of Capital

Investment should be encouraged by lowering the effective cost of capital invested in high technology industry. To the extent that this cannot be effected through open market conditions, incentives should be provided through such vehicles as:

A. Investment tax credits

B. R&D tax credits

C. Rapid depreciation

D. Reserve accounts

II Basic Research Support

The federal government should take a more active role in the support of basic research. Direct funding of basic research is one medium for doing so especially in very long term or problematical areas of research. However, other less costly and more cooperative vehicles should be explored. These would include government-industry cost sharing, incentives for industrial support of academic research, and industry-wide pooling of basic research and technology development (relaxation of antitrust limitations to such actions).

III Government-Industry Cooperation In Areas Of International Competition

The federal government should monitor the conduct of international high technology trade, providing a conduit for the flow of information on the subject to and from its own high technology industries. The government should counsel with its industry, taking a supportive role in international trade negotiations. Recognizing the diminished role of the United States as the sole leader in international trade, the government should be more assertive in the protection of U.S. trade rights, including

its willingness to institute defensive measures vis-a-vis the U.S. market where its industries are being denied free access to markets elsewhere.

IV Resolution Of Chronic Trade Imbalances

Chronic and acute trade imbalances with specific trading nations should be corrected. Where such imbalances of sufficient magnitude and duration are found, the federal government should enter bilateral negotiations with that foreign power to correct the situation. As a last resort, the government should be prepared to institute defensive measures in the U.S. market.

V Encouragement Of Technical Education

The federal government should encourage the teaching of mathematics, natural science, engineering, and other career preparation programs of relevance to its industry. Specifically, it should strive to raise the number and quality of engineers and scientists graduated through such measures as:

A. Raising of secondary school standards in mathematics and science.

B. Loans to science and engineering students.

C. Incentives for industry to support technical institutions, and to participate in technical teaching.

D. Stabilization of the technical job market (or avoidance of past destabilizing actions).

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Mr. Olmer, let me repeat my earlier comment that your working group has done an outstanding job in bringing into focus the many complex and interactive issues that surround the high technology trade issue. I know that you and many others have worked very hard to bring this issue this far. I urge you to carry it the next step, without which the effort will have been for naught. Let's see if we can forge a national policy for technology and trade.

Best regards,

THE PERKIN-ELMER CORPORATION

Horace G. McDonell, Jr.

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